

# Live Stock and Dairy

CONDUCTED BY CHARLES WM. BURKETT,  
Professor of Agriculture, N. C. A. & M. College, and Agri-  
culturist North Carolina Experiment Station.  
Inquiries of Progressive Farmer readers cheerfully an-  
swered.

## COWPEA HAY FOR HORSES.

There is a good deal said in recent years about the cowpea plant. That it can be grown North and East, and throughout the Middle West, is now proved beyond a single doubt. Its merit lies in its value as a short summer crop, its soil improving power and feeding value.

As a cattle food, we know it is good; but not much is known about its value for horses. A few notices have come to view in the agricultural press about its superior feeding value, but there have been few, if any, actual experimental tests to prove statements of its admirers.

The writer began a test some time ago, the same being extended through a period of three months—a time sufficiently long to give facts with attention. Two high-grade Percheron mares were used together as a team during the period, and both were under the same care, shelter, and worked side by side.

### RATION I—BRAN RATION.

Ten pounds of bran.  
Twelve pounds corn and cob-meal.  
Two and one-half pounds gluten meal.  
Fifteen pounds corn stover.  
Cost, 28.9 cents daily.

### RATION II—COWPEA HAY RATION.

Ten pounds cowpea hay.  
Twelve pounds corn and cob-meal.  
Two and one-half pounds gluten meal.  
Fifteen pounds corn stover.  
Cost, 23.9 cents daily.

It will be noticed the only difference between these rations is the substitution of cowpea hay for bran, the other feeding stuffs remaining the same in both. The result of three months' feeding is seen in the table following, where the weights of each horse are given.

Ration I. Horse: Daisy. Weights.	Date.	Ration II. Horse: Doll. Weight.
1200	March.....6	1285
1156	March.....13	1288
1170	March.....20	1239
1175	March.....27	1258
1181	April.....3	1281
1161	April.....10	1241
1145	April.....17	1186
1143	April.....24	1209
1065	May.....1	1253
1121	May.....8	1225
1149	May.....15	1271
1152	May.....22	1277
1153	May.....29	1302
1148	.....Period average.....	1257
731	.....Work done.....	731

This trial covers a period of the year that is ordinarily the hardest because of the strenuous effort necessary for spring planting.

### COMPARING BRAN AND COWPEA HAY.

It will be seen by the table that Daisy on the bran ration, after the first weighing, held her own throughout the period. It is true she lost in weight the first week, but after that her weights were more or less stable. This shows the ration was satisfactory in every way. The average weight for the period was 1,148, or slightly under the weight of the beginning.

The table also shows that where ten pounds of cowpea hay were given to Doll, they proved as valuable for feeding as an equal quantity of bran. In fact, by glancing at the several weighings it will be seen that Doll really weighed at the end of the period more than at the beginning, which shows beyond a doubt that the ration was satisfactory.

The cowpea ration was also five cents less in daily cost. This is a matter of considerable importance, and, as a fact, is much in the favor of this feeding stuff for farm horses.

Both of these rations were thoroughly satisfactory, and both were almost wholly home-grown.

CHAS. W. BURKETT.

## Wintering Horses.

Messrs. Editors: The average farm horse is worked too hard in summer and given too much idleness in winter. All through the planting and harvesting season his work is ceaseless and laborious, and then when snow and frost close the country roads the animal is shut up for most of the time in the stable. There are occasional drives with him when the weather is good or when the ground is frozen hard, but these drives are irregular and not the most conducive to the animal's best development. This wintering of horses is a problem that the breeder has to face as well as the farmer. He realizes the danger probably more than the man who has one or two farm horses to carry over. The breeder and trainer has enough horses to make it an object to give them regular daily exercise, and his men are employed for this special purpose. In this way the animals are kept in excellent condition through the winter, and in the spring they come out with fine sleek coats, good round bodies, and well knit but not over-developed muscles.

Nearly every farmer has a few horses which he hopes to sell at a fair bargain when the market is good. He makes it a part of his business to breed a few colts every year for extra sales. Now a good many of these farm horses are nearly ruined through the unwise wintering which they get. It is not that the owner is not willing to do the best by them, but because he thinks that a good winter's rest will do them good. No animal needs such a long rest. They all do better with a fair amount of exercise. There should hardly be a day in winter that the horses do not have the freedom of a yard or field to run about in if it is impossible to drive them. Farm horses turned loose in this way will do much better than those stabled carefully all winter. It will harden and toughen them to come in contact with the fresh air, and their whole systems will be better for it in the spring. They will be prepared then to enter in the spring work with more vim and vitality than if stabled all winter. The feeding is also an important question with the horses in winter. They cannot be put on a slim diet of hay and less grain without suffering therefrom. Let the diet be a fairly liberal one and then give them all the daily exercise they want.

WILLIAM CONWAY.

### The Ounces in a Pound of Butter.

In the official report on the Farmers' Institutes of Canada last year, the dairymaids and farmers' wives were told—what they doubtless knew before—that a pound of butter contained sixteen ounces; but when it came to the characterization of each of these sixteen ounces, we believe that most of them learned something new. This is the way the ounces were described:

1. One ounce of wisdom.—Let us show wisdom in selecting and demanding only the best.
2. One ounce of precaution.—We will take the precaution to properly prepare our utensils, and leave them in good condition when we are through with them.
3. One ounce of concentration.—Have your mind on your work and you will make no mistakes.
4. One ounce of cleanliness.—This is the dairyman's motto, and needs to be exercised in the whole process of butter-making.
5. One ounce of determination.—This will help us to overcome all difficulties.
6. One ounce of prevention.—The science of butter-making is made up almost entirely of preventive measures.
7. One ounce of forethought.—Which is needed at every stage.
8. One ounce of prevision.—What are the requirements of the market for which this butter is being made? We will consider this, and develop flavor, add salt and color to suit our customers.

9. One ounce of discrimination.—This is needed to distinguish flavors. It is also needed in choosing parchment paper, salt, etc.,

10. One ounce of accuracy.—By making use of the scales we shall know how much butter there will be in a churning, and thus gauge the coloring and salt, so that we may have uniformity.

11. One ounce of judgment.—We need to have good judgment in choosing the temperature at which to churn, and for making conditions favorable for churning at a low temperature.

12. One ounce of common sense.—If we use this, we will stop churning when the butter is in granular form.

13. One ounce of patience.—We must have patience in using the thermometer, in draining the wash water off the butter, and in giving the salt time to dissolve.

14. One ounce of experience.—This will help us in knowing when the butter is worked enough, and not over-worked and greasy.

15. One ounce of neatness.—This applies to person and product, and especially to the printing and wrapping of the butter.

16. This is the ounce of honor.—We will do our best, use what is best, and give such weight that the butter will be full sixteen ounces when it reaches the consumer.

### Why the Show Fowls are White.

If you should happen to drop in at a poultry show the coming winter, and this should be the first time that you were ever present at such an exhibition, you will see some of the most beautiful white birds that you ever laid your eyes on. Your admiration for this snowy whiteness may lead you to purchase some of the fowls, and if you should do this you would naturally expect the progeny to be like them. But next season, when you rounded up the young stock, you would not find one of them a match for the parents in color.

The last of August the writer made a visit to a poultry plant, where White Wyandottes are bred exclusively. In making the rounds of the place we discovered a dozen or more birds shut up in lime pens about four feet square. The windows to these pens all faced to the north. These are the birds with which the owner will make his record as a breeder of prize winners next winter. They were shut up in these pens the last of June, and not a ray of sunshine has fallen on them since. Sunshine dulls the color of the plumage, and the new coat of feathers must be grown entirely in the shade. These birds are fed on white corn, as yellow corn tends to give a brassy tinge to the feathers, and they receive every attention which will in any degree compensate for the ill effects of the close confinement. Their ration is apportioned with a view to supplying them with a due amount of feather making material, and the utmost cleanliness is observed with their pens in order that no stain may be communicated to the immaculate plumage.

We are thus giving away one of the secrets by which the superb appearance of show birds is obtained, and, perhaps, making it plain to somebody why his birds are not so spotlessly white as the parent stock was when they bought it. People who buy the birds which have been prepared for the show room in the above manner pay for all this puttering work and time consuming attentions. For one-half the money the owner would sell them others which for all purposes except the show room are just as good, and, we incline to the opinion, somewhat better, for this restriction of the liberty of the birds throughout the summer months must in some degree lessen their vitality and vigor. Show birds are all right in their place, but their place is not in the poultry house of the farmer who keeps chickens for what he can make out of them in the way of meat and eggs.—Wallace's Farmer.